

Markus Uhlmann

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1418055/publications.pdf>

Version: 2024-02-01

59
papers

3,290
citations

279487

23
h-index

205818

48
g-index

64
all docs

64
docs citations

64
times ranked

1986
citing authors

#	ARTICLE	IF	CITATIONS
1	On the role of turbulent large-scale streaks in generating sediment ridges. <i>Journal of Fluid Mechanics</i> , 2022, 930, .	1.4	21
2	Direct numerical simulation of turbulent mass transfer at the surface of an open channel flow. <i>Journal of Fluid Mechanics</i> , 2022, 933, .	1.4	7
3	Open-channel flow over evolving subaqueous ripples. <i>Journal of Fluid Mechanics</i> , 2022, 937, .	1.4	5
4	On the ice-nucleating potential of warm hydrometeors in mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 561-575.	1.9	1
5	A single oblate spheroid settling in unbounded ambient fluid: A benchmark for simulations in steady and unsteady wake regimes. <i>International Journal of Multiphase Flow</i> , 2021, 136, 103519.	1.6	10
6	Interface-resolved direct numerical simulations of sediment transport in a turbulent oscillatory boundary layer. <i>Journal of Fluid Mechanics</i> , 2020, 885, .	1.4	23
7	On the scaling of the instability of a flat sediment bed with respect to ripple-like patterns. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	1.4	8
8	Voronoi tessellation analysis of sets of randomly placed finite-size spheres. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 555, 124618.	1.2	12
9	Can preferential concentration of finite-size particles in plane Couette turbulence be reproduced with the aid of equilibrium solutions?. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	2
10	Heat and water vapor transfer in the wake of a falling ice sphere and its implication for secondary ice formation in clouds. <i>New Journal of Physics</i> , 2019, 21, 043043.	1.2	10
11	Direct numerical simulations of ripples in an oscillatory flow. <i>Journal of Fluid Mechanics</i> , 2019, 863, 572-600.	1.4	26
12	On the influence of forced homogeneous-isotropic turbulence on the settling and clustering of finite-size particles. <i>Acta Mechanica</i> , 2019, 230, 387-412.	1.1	16
13	The Influence of the Reynolds Number on the Auto-Rotation of Samaras. <i>ERCOFTAC Series</i> , 2019, , 411-416.	0.1	0
14	Kinematics and dynamics of the auto-rotation of a model winged seed. <i>Bioinspiration and Biomimetics</i> , 2018, 13, 036011.	1.5	27
15	A Numerical Study of the Flow Around a Model Winged Seed in Auto-Rotation. <i>Flow, Turbulence and Combustion</i> , 2018, 101, 477-497.	1.4	16
16	Clustering and preferential concentration of finite-size particles in forced homogeneous-isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 812, 991-1023.	1.4	41
17	Formation of sediment patterns in channel flow: minimal unstable systems and their temporal evolution. <i>Journal of Fluid Mechanics</i> , 2017, 818, 716-743.	1.4	66
18	Effect of surface contamination on interfacial mass transfer rate. <i>Journal of Fluid Mechanics</i> , 2017, 830, 5-34.	1.4	12

#	ARTICLE	IF	CITATIONS
19	Direct numerical simulation of open-channel flow over a fully rough wall at moderate relative submergence. <i>Journal of Fluid Mechanics</i> , 2017, 824, 722-765.	1.4	25
20	On the formation of sediment chains in an oscillatory boundary layer. <i>Journal of Fluid Mechanics</i> , 2016, 789, 461-480.	1.4	20
21	Columnar structure formation of a dilute suspension of settling spherical particles in a quiescent fluid. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	23
22	Localized turbulence structures in transitional rectangular-duct flow. <i>Journal of Fluid Mechanics</i> , 2015, 782, 368-379.	1.4	16
23	Forcing homogeneous turbulence in direct numerical simulation of particulate flow with interface resolution and gravity. <i>Physics of Fluids</i> , 2015, 27, .	1.6	36
24	Path instability on a sphere towed at constant speed. <i>Journal of Fluids and Structures</i> , 2015, 58, 99-108.	1.5	2
25	The motion of a single heavy sphere in ambient fluid: A benchmark for interface-resolved particulate flow simulations with significant relative velocities. <i>International Journal of Multiphase Flow</i> , 2014, 59, 221-243.	1.6	51
26	Interface-resolved direct numerical simulation of the erosion of a sediment bed sheared by laminar channel flow. <i>International Journal of Multiphase Flow</i> , 2014, 67, 174-188.	1.6	92
27	Direct numerical simulation of pattern formation in subaqueous sediment. <i>Journal of Fluid Mechanics</i> , 2014, 750, .	1.4	107
28	Sedimentation of a dilute suspension of rigid spheres at intermediate Galileo numbers: the effect of clustering upon the particle motion. <i>Journal of Fluid Mechanics</i> , 2014, 752, 310-348.	1.4	118
29	Direct numerical simulation of horizontal open channel flow with finite-size, heavy particles at low solid volume fraction. <i>New Journal of Physics</i> , 2013, 15, 025031.	1.2	113
30	Spatial and temporal scales of force and torque acting on wall-mounted spherical particles in open channel flow. <i>Physics of Fluids</i> , 2013, 25, .	1.6	16
31	The Significance of Simple Invariant Solutions in Turbulent Flows. <i>Annual Review of Fluid Mechanics</i> , 2012, 44, 203-225.	10.8	240
32	DNS of vertical plane channel flow with finite-size particles: Voronoi analysis, acceleration statistics and particle-conditioned averaging. <i>International Journal of Multiphase Flow</i> , 2012, 46, 54-74.	1.6	58
33	Turbulent puffs in a horizontal square duct under stable temperature stratification. , 2012, , .		0
34	Turbulence- and buoyancy-driven secondary flow in a horizontal square duct heated from below. <i>Physics of Fluids</i> , 2011, 23, 075103.	1.6	16
35	Force and torque acting on particles in a transitionally rough open-channel flow. <i>Journal of Fluid Mechanics</i> , 2011, 684, 441-474.	1.4	77
36	A Numerical Study of Turbulent Stably-Stratified Plane Couette Flow. , 2011, , 251-261.		2

#	ARTICLE	IF	CITATIONS
37	Direct Numerical Simulation of Sediment Transport in Turbulent Open Channel Flow. , 2011, , 295-306.		2
38	Reynolds number dependence of mean flow structure in square duct turbulence â€œ CORRIGENDUM. Journal of Fluid Mechanics, 2010, 653, 537-537.	1.4	2
39	Reynolds number dependence of mean flow structure in square duct turbulence. Journal of Fluid Mechanics, 2010, 644, 107-122.	1.4	140
40	Traveling-waves consistent with turbulence-driven secondary flow in a square duct. Physics of Fluids, 2010, 22, .	1.6	29
41	Direct Numerical Simulation of Vertical Particulate Channel Flow in the Turbulent Regime. , 2009, , 83-96.		2
42	The effect of coherent structures on the secondary flow in a square duct. Springer Proceedings in Physics, 2009, , 329-332.	0.1	1
43	A computational study of the hydrodynamic forces on a rough wall. Springer Proceedings in Physics, 2009, , 929-929.	0.1	0
44	Buoyancy effects on low-Reynolds-number turbulent flow in a horizontal square duct. , 2009, , .		0
45	Interface-resolved direct numerical simulation of vertical particulate channel flow in the turbulent regime. Physics of Fluids, 2008, 20, .	1.6	188
46	Transport of Heavy Spherical Particles in Horizontal Channel Flow. , 2008, , 351-369.		1
47	Coherent Structures in Marginally Turbulent Square Duct Flow. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2008, , 137-142.	0.1	0
48	Marginally turbulent flow in a square duct. Journal of Fluid Mechanics, 2007, 588, 153-162.	1.4	97
49	Characterisation of Marginally Turbulent Square Duct Flow. , 2007, , 41-43.		0
50	Linear stability of flow in an internally heated rectangular duct. Journal of Fluid Mechanics, 2006, 551, 387.	1.4	26
51	Performance of Various Fluid-Solid Coupling Methods for DNS of Particulate Flow. , 2006, , 215-223.		2
52	An immersed boundary method with direct forcing for the simulation of particulate flows. Journal of Computational Physics, 2005, 209, 448-476.	1.9	1,245
53	Linear instability of a corrugated vortex sheet â€œ a model for streak instability. Journal of Fluid Mechanics, 2003, 483, 315-342.	1.4	35
54	Orthonormal Polynomial Wavelets on the Interval and Applications to the Analysis of Turbulent Flow Fields. SIAM Journal on Applied Mathematics, 2003, 63, 1789-1830.	0.8	10

#	ARTICLE	IF	CITATIONS
55	An approximate solution of the Riemann problem for a realisable second-moment turbulent closure. <i>Shock Waves</i> , 2002, 11, 245-269.	1.0	23
56	Turbulent shear flow over active and passive porous surfaces. <i>Journal of Fluid Mechanics</i> , 2001, 442, 89-117.	1.4	150
57	An Approximate Roe-Type Riemann Solver for a Class of Realizable Second Order Closures. <i>International Journal of Computational Fluid Dynamics</i> , 2000, 13, 223-249.	0.5	12
58	An Approximate Riemann Solver for Second-Moment Closures. <i>Journal of Computational Physics</i> , 1999, 151, 990-996.	1.9	6
59	Interface-resolved direct numerical simulation of vertical particulate channel flow in the turbulent regime. , 0, .		1